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Sent: Tuesday, November 08, 2005 10:17 PM  
To: ccrsgcomments@resources.ca.gov  
Cc: jwolfe@igc.org; enviro@lumigenic.com  
Subject: Breakwater Survey

Dear Mr. John Ugoretz,

Attached is the file of the Breakwater Survey to which I referred to, at the November 2, Hot Spot meeting in Monterey during the discussion of the Coast Guard Pier Breakwater. Again, as summary, Mr. Daniel Gotshall was approached to do an objective survey of the recreational fishing effort in this area, without pay and on a voluntary basis. While this does not qualify as a scientific study, it does give us an insight as to what the recreational fishing effort is on the Breakwater Pier.

Respectfully submitted,  
Jesús C. Ruiz

## ANGLER CATCH AND EFFORT AT THE MONTEREY BREAKWATER

By Daniel W. Gotshall

The Monterey breakwater is one of the most diverse underwater habitats in Central Calif. Since 1962 on scuba dives I have observed 81 species of fish on and around this structure. At least 14 additional species have been observed by other divers. It has been speculated that more divers frequent the breakwater area than any other dive site in Central California, both for training as well as for being able to access an easily available dive site.

In August of 2005 I decided to do a survey of angling activity on the breakwater in order to determine what species of fish, particularly rockfish, were being taken, and the effort required to take them. This survey was not a statistically designed study. It consisted of visiting the breakwater almost every other day, counting the anglers present, and examining their catch. I separated the counts into adults (18 or over) and children 17 and younger. The surveys were conducted between the hours of 1 p.m. and 1:30 p.m.

From August 25 to October 26 I visited the breakwater on 21 week days and 7 weekend days. 24 anglers were counted during the week day surveys (1.17 anglers per day). There were 17 adults and 7 children. On weekend days I counted 15 anglers, 13 adults and 2 children. The observed catch for week day anglers was as follows: brown rockfish 1, black-and-yellow rockfish 6, blacksmith 5, jacksmelt 1. The average catch-per-angler was 0.51 fish. All of the rockfish were small, sexually immature individuals.

None of the weekend anglers had kept any fish, although some of the anglers indicated that they had released small rockfish. The average count of anglers on weekend days was 2.14.

The California Dept of Fish and Game has participated in sport angler surveys since the 1980's. This study is conducted by the Pacific States Marine Fishery Commission and goes by the name Marine Recreational Fishery Survey (MRFS). I have obtained data for 2004 and the first half of 2005. Unfortunately, the data contained surveys at Wharf #2 as well as the Breakwater. A total of 442 anglers were contacted. The catch was 221 fishes (25 species, which included 6 species of rockfish). The average size of the rockfish suggest that most were immature.

The 6 species of rockfish, numbers caught, and average sizes are:

<i>Fish Caught</i>	<i>Number Caught</i>	<i>Average Size</i>
Black-and-yellow rockfish	7	209mm
Blue rockfish	10	229mm
Brown rockfish	1	165mm
Gopher rockfish	6	245mm
Grass rockfish	1	299mm
Kelp rockfish	2	257mm

In summary, my observations indicate that most of the anglers using the breakwater were adults, the number of fish caught and kept was less than I had expected, but the sizes of the rockfish indicate that the anglers are harvesting mostly immature rockfish.

Finally, the MRFS surveys should be analyzed further to better determine the angler effort on the breakwater only, and the numbers, as well as the sizes of fishes in the catches kept by the anglers.